

FLORIDA HIGHWAYS



Dixie Highway Through the Hammock West of Indian River.

Vol. 3

FEBRUARY, 1926

No. 2

**\$1.00
Per Year**

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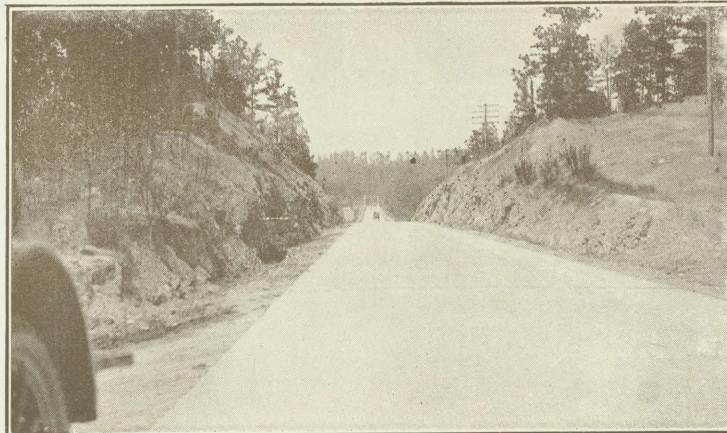
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Alabama Project No. 40 (half mile approaches each side of Cahaba River Bridge) Slag Concrete paving commencing at Shelby-Jefferson County line.

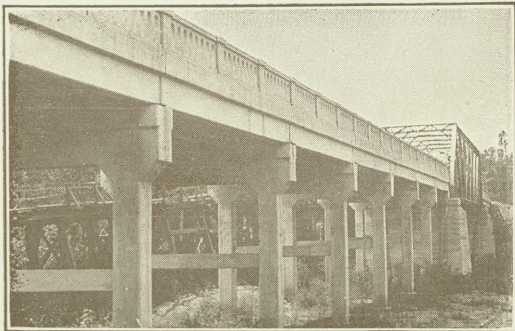


Another Fine Section (7 miles) of Slag Concrete on Birmingham-Montgomery Highway

This 6-mile slag concrete highway, F. A. P. No. 147, begins at the end of the asphalt pavement on top of Shades Mountain and ends at A. P. No. 40, half mile north of

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concrete bridge, shown in lower photo, which spans the Cahaba River.



Slag Concrete bridge, F. A. P. No. 110, over Cahaba river on Birmingham-Montgomery Highway, built in 1924 by Columbus Const. Co. (Columbus, Ga.)

A. P. No. 40 is completed, also four miles of F. A. P. No. 147. The John M. Harbert Eng. & Const. Co. are sub-contractors for Newell Contracting Co., Birmingham, on both projects.

Of particular interest to road officials is the fact that the use of "ENSLEY BASIC SLAG" on these, and F. A. P. No. 100A (17½ miles in Chilton Co.) on this highway, is consistently producing 4,000 lb. per sq. in. concrete—and better!

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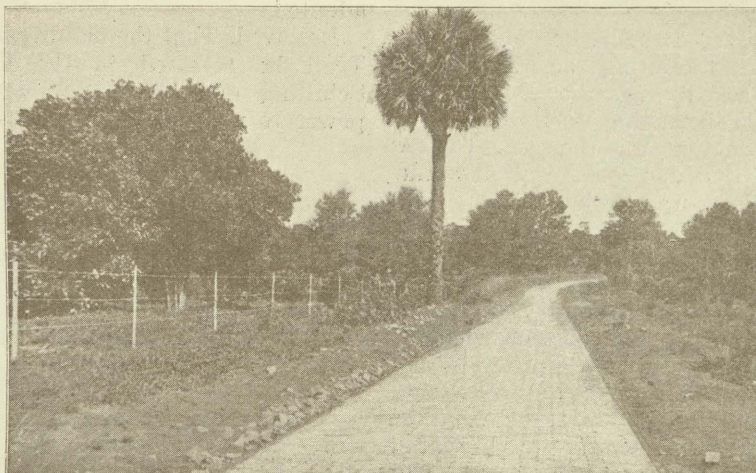
Atlanta
Thomasville

•BIRMINGHAM•

Montgomery
Ocala, Fla.



FLORIDA HIGHWAYS



Vol. III

FEBRUARY, 1926

No. 2

Transactions at Quarterly Meeting of State Road Department, Tallahassee, January 27th, 1926

The first quarterly meeting of the State Road Department for the year 1926 was held at its offices in Tallahassee, Florida, January 27th, 1926, with the following members present: F. A. Hathaway, Chairman; E. P. Green, W. J. Hillman and J. Harvey Bayliss. J. L. Cresap, State Highway Engineer, and B. A. Meginniss, Attorney for the Department, were also in attendance, the latter acting as Secretary.

Bay County

A delegation from Bay County, consisting of L. E. Vickery, Chairman of the Board of County Commissioners, S. W. Johnson and J. Ed. Stokes, member and attorney for the Board, respectively, and Joso Lipes, requested that the Department take over State Road No. 20 for maintenance and release to Bay County its convicts to be used for maintaining detours during the construction of the road. This request was taken under advisement.

Duval County

Messrs. J. F. Hammond, Chairman of the Board of County Commissioners, and J. D. Richardson, Road Superintendent of Duval County, appeared before the Department requesting that the Department take over for maintenance that portion of State Road No. 13 between Maxville and Baldwin. These gentle-

men were advised that an engineer will be sent to make an inspection of the road and to make a report as to its condition with a view to determining the advisability of complying with this request.

This delegation also conferred with the Department relative to the construction of the Nassau River Bridge on State Road No. 3, popularly known as the Atlantic Coastal Highway, and were informed that the Department will construct three-quarters of a mile of road approaching the bridge.

Hillsborough County

Messrs. W. T. Williams, Chairman, and John T. Gunn, member, and Thomas M. Shackleford, Jr., attorney for, the Board of County Commissioners of Hillsborough County, together with Messrs. J. N. Holmes, J. R. Hendry and A. B. Pimm, citizens of said County, the latter being also county engineer, placed before the Department a request that State Road No. 5 in Hillsborough County, Road 17 from Tampa to the Hillsborough County line and the bridge over the Alafia River be taken over for maintenance by the Department, and that the said bridge be reconstructed. No formal action was taken on these requests.

The Hillsborough County delegation also extended

an invitation to the Department to hold its meeting for the hearing of complaints and suggestions on its budget of work at Tampa, which invitation was subsequently accepted.

West Coast Highway Association

Senators Hugh Hale, of Brooksville, and S. A. Hineley, of Live Oak, representing the West Coast Highway Association, asked that the Department bear in mind Road No. 5 in making up its budget of maintenance and construction for the year. These gentlemen were assured that due consideration would be given the road in making up said budget.

Okaloosa County

Mr. R. P. Campbell, of Okaloosa County, presented to the Department the request of numerous citizens of his County that no change be made in the location of State Road No. 1 between Baggey's Creek and Holt, and exhibited a number of letters offering the necessary right of way, which letters were ordered filed. Mr. Campbell was told that the Department does not contemplate any change in the location of the road as designated by it between the points mentioned.

St. Johns and Volusia Counties

A delegation from St. Johns and Volusia Counties appeared before the Department with reference to the status of State Road No. 4 in these counties, the delegation consisting of Messrs. Harris, Pearson, Goode and others. These gentlemen were informed that the Department has let contracts for clearing, grubbing, grading and the necessary drainage structures on said road from the northern boundary line of St. Johns County to Bunnell and that it will construct rock shoulders on the old road from the St. Johns County line to Bunnell.

Dade and Monroe Counties

A delegation from Dade and Monroe Counties, consisting of Senator James E. Calkins, Messrs. D. A. McDougall, J. H. McCord, Erbin Cook, V. Earl Irons, Geo. F. Cook and W. G. Blanchard on the part of Dade, and Messrs. J. Otto Kerchimmer, Chairman of the Board of County Commissioners; W. Hilton Curry, Chairman of the Road Committee, and Braxton Warren, Chairman of the Fire Committee of said Board of County Commissioners on the part of Monroe County, appeared before the Department relative to the routing of State Road No. 27, familiarly known as the Tamiami Trail, through these counties, and presented a resolution adopted by the County Commissioners of Dade County. The matter was presented for Dade County by Senator Calkins, and for Monroe County by Mr. Kerchimmer. The latter stated that his county has available \$100,000.00 to be used in the construction of the road in his county and a similar amount will also be included in a bond issue to be authorized if the road follows the location requested by the Board through Monroe. The Chairman of the Department stated that he has just completed an inspection of the pro-

posed location of the road through the western terminus and that he will in the next few days make an inspection going in from the eastern or Dade County side.

Upon motion of Captain Hillman, seconded by Mr. Green, the following resolution was unanimously adopted:

Resolved, That the definite location of the Tamiami Trail be referred to the Chairman and Messrs. Schilling and Green for determination, with full power to make the final location.

Lee County

Messrs. John Morris and George Boring, of Lee County, presented to the Department a request that State Road No. 5 be hard surfaced between Punta Gorda and Fort Myers. These gentlemen were advised that the Department will construct this section of Road 5.

State Road No. 1 Association

Messrs. J. E. Keen, of Milton; George B. Perkins, Tallahassee; J. B. Clark, Live Oak; T. T. Turnbull, Monticello; H. H. Wells, Chipley; Dr. C. M. Ausley, Tallahassee; A. Livingston, Madison; J. E. Hardee, Madison; W. E. Algee, Madison; L. A. Fraleigh, Madison; F. W. Reams, Madison, and W. B. Bishop, Capps, appeared as the representatives of State Road No. 1 Association and presented the requests of that association with respect to the Department's program on State Road No. 1. The delegation was assured that due consideration would be given the needs and demands of this road in making up its budget for the year's work.

Leon County

Dr. C. M. Ausley, member of the Board of County Commissioners of Leon County, presented to the Department a request that State Roads Nos. 1, 10 and 19 be remembered in making up the year's budget. Assurance that the needs of the roads mentioned will be given was tendered Dr. Ausley.

Madison County

Messrs. L. A. Fraleigh, J. E. Hardee, W. E. Algee, A. Livingston and F. W. Reams, of Madison County, urged the needs of State Road No. 1, which needs the Department assured them would be given due and full consideration.

Taylor County

A delegation from Taylor County, consisting of Senator W. L. Weaver, C. E. Jackson, road superintendent, and S. H. Peacock requested that the Department place a surface treatment on a portion of State Road No. 19 in that county. This request was taken under advisement. The delegation also requested that the roads in the county be located definitely as early as possible.

Dixie County

Upon motion of Captain Hillman, seconded by Mr. Green, the following resolution was unanimously adopted:

Resolved, That a force of convicts be placed in



Project 19—Road 2—Rock Base North of Facil.

Dixie County to hardsurface Road No. 19 in that county, using county funds for that purpose, with the understanding that Dixie County will continue the construction of said road from Cross City to Fort Fanning.

Brevard County

Mrs. T. D. Barr, John O. Shares, F. W. Fenn and C. F. Canova, of Eau Gallie, appeared before the Department with respect to the location of State Road No. 4 through that town. The chairman informed the delegation that he will shortly make a personal inspection of the proposed routes with a view to making the definite location.

Jefferson County

Senator T. T. Turnbull and W. B. Bishop, of Jefferson County, requested permission of the Department to use a portion of its funds for the hardsurfacing of that portion of Road 42 between Road No. 1 and Aucilla. The matter was taken under advisement. This delegation also requested that the State roads in Jefferson County be located as early as practicable.

Sarasota County—Road 5

Upon motion of Captain Hillman, seconded by Mr. Green, the following resolution was unanimously adopted:

Resolved, That the Chairman and Mr. Green be and they are hereby authorized, empowered and directed to locate State Road No. 5 in Sarasota County from Sarasota to the Myakka River.

Award of Contracts

Upon motion of Mr. Green, seconded by Captain Hillman, the following resolution was unanimously adopted:

Whereas, bids were asked by the Department for the construction of the projects hereinafter designated, and

Whereas, the firms and persons respectively named were low bidders thereon, now, therefore, be it

Resolved, That the action of the Chairman in awarding and executing the contracts hereinafter named, be and the same is hereby approved and confirmed, which said projects and contracts are as follows, to-wit:

Project 19, Hamilton County, rock base; awarded to Duval Engineering and Contracting Company, \$160,399.25.

Project 48, St. Johns County, grading; awarded to A. J. Hoffman, \$179,599.49.

Project 49, Flagler County, grading; awarded to A. J. Hoffman, \$118,337.42.

Project 621, Okaloosa County, grading; awarded to Penton-Mathis Construction Co., \$103,224.69.

(Continued on Page 6)



Florida Highways

Published Monthly
Official Publication of the State Road Department

PERSONNEL OF DEPARTMENT

F. A. HATHAWAY (*Jacksonville*), *Chairman*
(*Official Residence, Tallahassee.*)
E. P. GREEN, *Bradenton*
W. J. HILLMAN, *Live Oak*
J. HARVEY BAYLISS, *Pensacola*
I. E. SCHILLING, *Miami*
WALTER P. BEVIS, *Tallahassee, Secretary.*

PERSONNEL OF EMPLOYEES IN GENERAL CHARGE OF THE WORK OF THE DEPARTMENT

Engineering Division

J. L. Cresap, Tallahassee.....State Highway Engineer
L. K. Cannon, Tallahassee.....Ass't. State Highway Engineer
G. L. Derrick, Tallahassee.....Bridge Engineer
C. W. DeGinther, Tallahassee.....Ass't. Bridge Engineer
Harvey A. Hall, Gainesville.....Testing Engineer
F. W. Berry, Jr., Tallahassee.....Office Engineer
Harvey A. Hall, Gainesville.....Acting Supt. of Equipment
R. L. Bannerman, Marianna.....Div. Engr.—1st Div.
J. H. Dowling, Lake City.....Div. Engr.—2nd Div.
R. J. Cassie, Fort Pierce.....Div. Engr.—3rd Div.
L. B. Thrasher, Ocala.....Div. Engr.—4th Div.
A. W. Kinney, Lakeland.....Div. Engr.—5th Div.
R. C. Fergus, Fort Lauderdale.....Div. Engr.—6th Div.

Accounting Division

S. L. Walters, Tallahassee.....Auditor

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B. A. Meginniss, Attorney for the Department,
Editor and Business Manager

Volume III February, 1926 Number 2



THE DEPARTMENT'S PROGRAMME

The programme of the Department has grown to tremendous proportions. Figures recently compiled show that with the addition of the projects on which bids were asked returnable March second, the Department will have under construction 632.8 miles of road construction and 13,739 feet of bridge construction involving an expenditure of more than seven million dollars.

Elsewhere in this issue we are presenting the Department's proposed budget. This is a comprehensive and logical exhibition of the work which the Department proposes to do and an analysis will disclose that the Department will, within the next few months, advertise and let a great number of contracts covering projects in every section of the state. The members of the Department feel a justifiable pride in the rapid strides which are being made towards accomplishing the construction of the state's primary or preferential system and a feeling of satisfaction that in spite of the embargo and the difficulty of securing materials, there has been no let-up in the work of the Department at any time, although, of course, under more favorable circumstances even greater results might have been accomplished.

At another point in this issue there appears a statement of the estimated resources of the Department for the year 1926. It is believed that this estimate is a fair forecast of the funds which the Department will have at its disposal for road construction and maintenance. The total as there shown is upwards of \$12,000,000.00, eliminating the 10% which must be reserved for emergencies. It is to be understood, of course, that of this amount \$7,000,000.00 will be required to take care of work already under construction.

It is the intention of the Department to use this money to build and maintain roads, and once the difficulties which have been encountered in securing necessary rights of way and an adequate supply of materials have been obviated, magnificent results may be expected. There is abundant evidence that the year 1926 will prove the most notable in the history of Florida's Road Department.

Especial attention is directed to the views of Chairman Hathaway as expressed in the "Chairman's Column" on the next page.

THE BUDGET MEETING

The Department having, at its January meeting, adopted a tentative or proposed budget of maintenance and construction work for the year 1926, it now becomes necessary under the statute to hold a public hearing at which the public may offer complaints and suggestions as to this proposed budget.

(Continued On Page 19)

Chairman's Column



THE DEPARTMENT'S ACCOMPLISHMENTS FOR THE PAST SIX MONTHS

On the eve of the meeting to be held in Tampa, at which the Department will adopt its formal programme of work for the present year, it seems appropriate that some statement of the activities and accomplishments of the Department for the past six months be set forth.

The period of the past half year has been without precedent in the history of the state. Conditions, so far as road construction is concerned, have been almost chaotic. Faced with freight congestion and embargo which have practically suspended deliveries of materials, it is most gratifying to point out that there has been no pause in the work of the Department, its organization and resources having been kept working at full time.

The members of the Department foresaw that the

conditions would render inadvisable and practically useless the letting of paving contracts, and a policy of concentration upon clearing and grubbing and grading, and upon the surveys of state roads was pursued. The result of this foresight is not only gratifying but surprising. Figures compiled in our offices show that during this period there have been surveyed for location 461.8 miles of road. This work has been done thoroughly and systematically, and the Department has followed it in all cases where that course was found practicable with the letting of contracts for some phase of the construction of the roads.

It is probably not generally known that in spite of the unprecedented conditions referred to the State Road Department has actually finished during the past six months 135 miles of road. Of this total, 2.8 miles are concrete, .11 miles bituminous concrete, 5.12

(Continued on Page 20)

TRANSACTIONS AT QUARTERLY MEETING OF STATE ROAD DEPARTMENT

(Continued From Page 3)

Project 631, Holmes County, grading; awarded to E. P. Toulmin, \$117,581.97.

Project 648, Hardee County, grading; awarded to Federal Contracting Co., \$85,867.24.

Project 655, Highlands County, rock base; awarded to H. E. Wolfe, \$150,607.40.

Project 658, Washington County, grading; awarded to Meyers Construction Co., \$58,049.30.

Project 663, Citrus County, grading; awarded to Taylor Contracting Co., \$78,132.06.

Project 679, Hernando County, grading; awarded to Taylor Contracting Company, \$66,122.25.

Project 682, Citrus County, grading; awarded to Caye-Andrews Construction Co., \$74,548.48.

Project 50-B, Putnam County, concrete bridge; awarded to Luten Bridge Co., \$37,104.40.

Project 625, Citrus County; awarded to R. H. H. Blackwell, concrete overhead, \$23,228.84.

Project 631-B, Holmes County; timber bridges; awarded to F. D. Harvey & Co., \$44,116.60.

Project 658-B, Washington County, timber bridges; awarded to F. D. Harvey & Co., \$17,689.80.

Project 50-B, Putnam County, grading; awarded to B. Booth & Co., \$101,193.80.

Project 660, Clay County, grading; awarded to B. Booth & Co., \$63,179.26.

Project 51, Escambia County, concrete; awarded to Noonan-Lawrence, \$187,795.89.

Project 648-B, Hardee County, concrete and timber bridge; awarded to J. S. Walton & Co., \$75,661.90.

Project 641-A, Palm Beach County, grading; awarded to Chas. F. Wilmore, \$78,255.80.

Employment of Traffic Manager

Upon motion of Captain Hillman, seconded by Mr. Green and unanimously carried, the following resolution was adopted:

Resolved, That the Chairman be and he is hereby authorized to employ at a salary of not to exceed \$250.00 per month, and with the approval of the Governor, a traffic manager, whose duties shall be to facilitate the freight shipments of the Department, to take care of its car supply, to assist contractors in securing prompt deliveries, and such other duties as usually appertain to such position.

Tentative Budget 1926

Upon motion of Mr. Green, seconded by Captain Hillman, the following resolution was unanimously adopted:

Resolved, That the proposed budget of maintenance and construction work for the year 1926 as prepared by the members of the Department, and on file in the office of the Department, be and the same is hereby tentatively adopted.

Be it further resolved, That Wednesday, March 10, 1926, be fixed and designated as the time, and Tampa, Florida, as the place for the public hearing as to the proposed budget of work, at which time and place the Department will hear all complaints and suggestions

offered by the public as to any changes in said budget; and

Be it further resolved, That the Chairman be and he is hereby authorized and directed to have published in one newspaper in each of the cities of Pensacola, Jacksonville, Orlando, Tampa and Miami, the said proposed budget of work and estimate of revenue, together with the time and place for said hearing as directed by statute.

Bay County—Road 10—Project 680

Upon motion of Mr. Green, seconded by Captain Hillman, the following resolution was unanimously adopted:

Resolved, That the Chairman be and he is hereby authorized and directed, without further reference to this body, to make application to the War Department for the approval of the construction of a bridge over East Bay of Saint Andrews Bay, Road No. 10, located five miles southeast of Panama City, Bay County, Florida; which said bridge shall be constructed according to the plans submitted by the Chairman, said plans being dated January 25, 1926, and consisting of one sheet showing location, soundings and elevation and plan of draw span in closed and open position.

Bay County—Road 10—Project 681

Upon motion of Mr. Bayliss, seconded by Mr. Hillman, the following resolution was unanimously adopted:

Resolved, That the Chairman be and he is hereby authorized and directed, without further reference to this body, to make application to the War Department for the approval of the construction of a bridge over West Bay of Saint Andrews Bay, Road No. 10, located four and one-half miles northwest of Panama City, Bay County, Florida; which said bridge shall be constructed according to the plans submitted by the Chairman, said plans being dated January 25, 1926, and consisting of one sheet showing location, soundings and elevation and plan of draw span in closed and open position.

Election of Chairman

Upon motion of Mr. Green, seconded by Captain Hillman, the following resolution was unanimously adopted:

Resolved, That Dr. F. A. Hathaway be and he is hereby elected Chairman of the State Road Department of the State of Florida for the year 1926 and until his successor is elected and qualified.

Election of Acting Secretary

Upon motion of Captain Hillman, seconded by Mr. Green, the following resolution was unanimously adopted:

Resolved, That Walter P. Bevis be and he is hereby elected acting secretary of this Department for the year 1926.

Upon motion, duly carried, the expense accounts of the members were ordered paid.

There appearing no further business, the Department was adjourned to meet in Tampa, Wednesday, March 10, 1926.

Hawaiian Youth Wins Richest Scholarship in National Contest

**Son of Homesteader on Pacific Island is Recipient of the H. S. Firestone University Award
Secretary Mellon Chairman of Committee That Judges Final Papers in Good Roads Competition**

John Texeira, sixteen-year-old Hawaiian student in "the most western high school in the United States," is announced as winner of the H. S. Firestone Four Years' University Scholarship, one of the largest educational awards offered in this country.

His prize, given for the best 700 word essay on the subject, "Economies Resulting from Highway Improvement," was the magnet that drew more than 200,000 high school students from every state and territorial possession into a national contest conducted by state universities and departments of education, co-operating with the Highway Education Board. The scholarship is valued in excess of \$4,000 for educational purposes, and Texeira is the sixth high school student to win it.

The circumstances of Texeira's triumph are not lacking in dramatic qualities. From the vantage point of his native cane brakes, this son of a homesteader on the Island of Kauai wrote an economic paper that excelled, in the opinion of a cabinet member, an educator and an editor, the best his more favored competitors could produce. Through their decision he emerges from this outpost island in the Pacific Ocean to carry the coveted honor beyond the confines of Continental United States for the first time in the history of the contest. Kauai is the northernmost island in the Hawaiian group, and, westward from San Francisco, lies 2,200 miles from the mainland.

Board officials consider it not the least of his honors that his paper should be selected by a committee of which Andrew W. Mellon, Secretary of the Treasury, is chairman. Mr. Mellon's associates are Dr. Walter Dill Scott, president of Northwestern University, Chicago, and Griffith Ogden Ellis, editor of The American Boy, Detroit. The committee was appointed by the chairman of the Board, Dr. J. J. Tigert, U. S. Commissioner of Education, Department of the Interior.

The judges gave honorable mention to four other essays held of special merit, but no pecuniary reward goes to the authors. They are: Miss Natalie Watson Berle, Reading High School, Reading, Mass.; Miss Ronda Jenkins, Technical High School, Indianapolis, Ind.; Harold G. Smith, Liberty High School, Bethlehem, Penn.; and Miss Patti Cochrine Trim, Marksville High School, Marksville, La.

Texeira's paper was submitted to the Board by the Extension Division of the University of Hawaii, after it had been chosen from essays submitted from virtually every Hawaiian high school. His biography unintentionally withdraws the curtain on a struggle through "eight unsteady years" for an elementary education, and reveals his character like a beacon.

Of himself he says: "I am the fourth child in a

family of ten. My dad is a common laborer and works in the cane fields. For eight unsteady years I attended public school in my home town. I graduated from the eighth grade in 1924 and in September of the same year I entered Kauai High School, which is the farthest high school in the western boundary of the United States."

Success in this contest assures him of four years at any college or university in the United States, with his expenses of tuition, room, board, books and special fees paid by the donor.

His winning paper displays a grasp of transportation problems that embraces conditions in the States as well as in his own environment. It reveals an ardent American patriotism, and, in his closing sentence, breathes of the soil from which he comes. He says: "The glory as well as the strength of a country lies in a contented and happy husbandry."

The seventh in this series of contests is now being announced to the high schools of the nation.

His prize winning essay follows:

Economies Resulting From Highway Improvements

By JOHN TEXEIRA, Kauai High School, T. of H.

One of the first steps in the opening up of a country is the location and building of good roads for the accommodation of travelers, the carriage of commodities and the development of natural resources. Since the World War, France has realized the economic value which good roads contribute to her great task of national reconstruction. The neglected farms in the United States and the prevalence of illiteracy in isolated regions, besides the overwhelming traffic increases in our cities due to our industrial outputs, have brought the country to a thoughtful crisis.

In his inaugural address, President Coolidge stood firm for national economy. "I believe in economy not because I want to save money, but because I want to save people." We must emphasize economy not alone in the production of goods, but in the development of men and women. It is here that we strike the fact of basic importance—improved highways for the better development of society. Good highways, leading to every home, opening up the country, encourage social intercourse and spread the roots of education.

(Continued On Page 21)



Project 45—Road 1—Bridge Across Famed Suwannee River Now Under Construction at Ellaville.

Review of 1925 Accomplishments in Paving Construction

By O. A. STELLER in Highway Engineer and Contractor

Nineteen-twenty-five was a year of tremendous construction activity. Though the building industry was unusually active and required the services of labor and transportation facilities in greater measure than in recent years, the volume of highway work undertaken during the year marks an outstanding accomplishment in the history of highway improvement.

Progress in the construction of traffic surfaces both in city and country has been so rapid in recent years that each year's accomplishments are of utmost importance. Developments in design, construction methods and equipment have not only speeded up highway construction, but they have also enabled the engineer to safeguard public investments in pavement construction and to serve traffic more efficiently than ever before.

While definite statistics are not yet available from all highway building communities, enough data is at hand to place 1925 in the forefront of actual accomplishment in providing paved streets and roads. Highway and street construction now involve the expenditure of more public funds than any other public improvement. Estimates place the 1925 investment

in highways alone at \$1,350,000. Approximately 24,300 miles of highway were improved under the supervision of state highway departments and probably an equal mileage was built under local supervision.

Public support was full and complete during the past year. Practically everyone now rides in a motor car and the subject of highway improvement is now a matter of personal interest to everyone. How can it help but be when there are actually more automobiles than there are telephones. And the work has only been started. There will be greater developments in the years to come, especially in better design, in better construction methods and in even more efficient equipment.

Weather Was Favorable

On the whole, the 1925 construction season was a favored one as far as weather conditions were concerned. The season opened fairly early and many contractors had a flying start with equipment and materials on the job and ready for use as soon as the weather permitted actual construction. Generally favorable weather prevailed throughout the construc-

tion season and there were no unusual circumstances interfering with paving operations. During October, unfavorable weather set in and an early spell of cold weather caused the shutdown of many highway jobs at an earlier season than usual. Had it not been for this feature, many states would have shown records of construction ever greater than their present accomplishments.

Early Award of Contracts

Many states have adopted the policy of awarding contracts during the winter and early spring and the results of the past construction season have shown the wisdom of that procedure. Not only are contracts awarded early, but the contractor is paid for materials delivered on the job and is encouraged to make all preparations before weather permits actual construction.

Such a policy has far reaching advantages in addition to lengthening the effective construction season. It is partially responsible for the great mileages now constructed in a single season. It distributes the transportation of construction materials over a longer period of time and thus prevents delays due to the inability of the railroads to provide cars and make shipments. It is a distinct advantage to the manufacturers and producers of road building materials and equipment. They are no longer called upon to store vast quantities of materials during the winter months to meet the great demand in the spring. This means that there is no longer the need for tying up huge investments in materials. The benefit is passed on to the contractor and through him to the taxpayer in lower prices for construction.

During 1925 the policy of awarding contracts during the winter became more general than in previous years but there is still a great opportunity for extending this advantage. The practice has become very nearly general for highway work in many states but is not so much used for street pavement contracts. There is still an opportunity to reduce the peak of material shipments and to distribute their delivery more evenly over the entire year.

Size of Contracts

To accomplish the construction of some 48,000 miles of highway and the vast amount of street work in a single year has, of necessity, required the development of contracting and engineering organizations to an extent little dreamed of when the length of the average highway contract was about half a mile.

Equipment manufacturers have had an important part in the rapid growth of the annual accomplishments in highway construction. Without the development of large paving mixers, efficient hauling equipment and mechanical methods of preparing and proportioning road building materials, the accomplishments of the past season would have been impossible.

The amount of highway work that one contractor can successfully undertake in a season is becoming fairly definitely fixed. It all depends, of course, on the equipment he uses. The average performances of certain sizes and types of equipment are now pretty well known and highway engineers are basing their estimates of a contractor's ability to handle a given volume of work on the rated capacity of his equipment as well as on the efficiency of his organization.

For instance, the state of Illinois considers 15 miles of standard width concrete pavement a season's work for one mixer. Experience has shown that a 21 cu. ft. mixer will, under average conditions, build 15 miles of pavement in a season. Awards, therefore, are made largely on that basis. If a contractor undertakes the construction of 45 miles of highway in a season, the state insists on his using three outfits.

Construction Concentrated on Main Routes

While practices in the various states differ in the matter of selecting the routes to be placed under contract, there has been a marked effort to concentrate a season's construction on certain important through routes rather than scattering the work along a great many routes. This is especially true in the middle west. In the eastern states the through routes have already been improved and construction of high type pavements is generally done on the worn-out sections of the original surfacing. But even in these states, notably New York and Pennsylvania, the 1925 construction activity has aimed largely at closing the gaps in the pavement on the most important routes.

Wider Highways

Probably the most significant activity during 1925, at least insofar as it forecasts the probable highway development of the future, was the trend toward the construction of wide highway and the widening of existing pavements. The need for greater width of pavement on the main highways near the centers of population has forced highway officials to make provision for the swarms of motor vehicles that throng the roads. Practically every community where traffic is very heavy has a board or commission whose duty it is to make plans for adequately caring for traffic. In almost every case that means the widening of the highways.

Much work has already been done along these lines and much more is planned for the future. The outstanding instance of the building of these "super-highways" is in the vicinity of Detroit, where several highways having an 88-ft. paved surface on a 204-ft. right-of-way are under construction. Other communities such as Cook county in Illinois, Westchester in New York, Los Angeles and San Francisco counties in California and others are either already actively engaged in the work of providing wide highways or have made plans for their immediate construction.

Design

Most prominent among recent changes of design is the slab with the thickened edge. Developed first in Michigan, tried out in California and first used extensively on 340 miles of concrete road in Maricopa county, Arizona, its effectiveness was never fully realized until both the Pittsburgh and the Bates experimental roads proved its value. This thickened edge design was first adopted as standard for Illinois and has since been adopted by at least 30 state highway departments and many county highway departments.

In some tests of slabs having the Illinois section, the U. S. Bureau of Public Roads found that, for equal load supporting capacity, the concrete along the doweled longitudinal joint should be 0.7 the thickness along the edge. The same tests indicated that when

the pavement was provided with a curb the thickened edge was of little value because vehicles kept too far from the edge to produce breaking stresses.

Many of the states in which the thickened edge is standard are also building bases with a similar flare at the edges.

There is also a distinct tendency to build thicker pavements where heavy trucking is expected. A slab thickness of 10 ins. is the rule on such streets or highways in the vicinity of some of the larger cities and 12 ins. is not uncommon.

Joint practice has also undergone a few changes. The tendency now is a return to the transverse expansion joints, either at regular intervals or at specified places such as the beginning or end of vertical and horizontal curves, on approaches to bridges or at noon or night stops where construction joints were formerly used. Transverse expansion joints are universally used in street work. The interval between joints varies considerably in different cities, but is usually from 30 to 40 ft.

The longitudinal center joint has come into general use in the northern states where heavy soils and deep freezing combined with the warping action which accompanies frequent changes in temperature, have caused considerable longitudinal cracking. In city work the tendency is to build concrete pavements in narrower strips, dividing them by longitudinal joints spaced 10 or 12 ft. apart.

In the suburbs and the residential sections of some of the larger cities street pavements are often built with what is called the "suburban curb." This is hardly a curb at all, being rather a raised portion of the pavement to form a gutter. It is so low that cars in an emergency run onto the grass parkway. When the suburban curb is used, streets may be several feet narrower without being dangerous.

Research

Activities in highway research, while they have not been as marked as in recent years, have gone forward steadily. There have been no experimental roads built on the scale of the Bates road or the Pittsburgh test road. Nevertheless such organizations as the National Research Council have been very active in making studies both in matters of highway design and in the operation of motor vehicles. Most of these studies are being made in co-operation with the various state highway departments and with experimental stations of universities. The work covered includes further studies on subgrades, time studies of the operation of grading machinery, time studies of paving operations, traffic investigations, etc. One of the most important studies on the effect of reinforcement in pavements was recently reported.

Researches undertaken by states include studies of the effect of calcium chloride for curing concrete pavements being made by the states of California and Arizona. The state of Illinois is continuing its study of the stresses in pavement slabs. No report has as yet been issued on this study.

So much in the way of experimental work has gone on in the last few years that highway engineers have

hardly had time to try out all of the principles discovered. In actual construction, especially in road work, engineers are putting into practice most of the known principles of design arrived at through experiment.

Examples of 1925 Accomplishments

Pennsylvania leads all the states in highway activities during 1925. In that year Pennsylvania completed 1,100 miles of hard surfaced highway—a world's record of achievement. New York built about 550 miles of pavement, a little less in mileage than last year, but the total yardage placed exceeds the 1924 construction. This increase in yardage and decrease in mileage is due to the fact that a greater average width of pavement was built.

In the middle west, Illinois leads in the mileage of paved roads constructed during the year. The total mileage of pavement completed—about 900 miles—is less than last year's record achievement of 1,190 miles. This is due partly to the early advent of cold weather and partly to the fact that legal difficulties in obtaining right-of-way retarded work on the completion of the original \$60,000,000 bond issue system. The state is prohibited from starting on the \$100,000,000 system until the original system is completed. There are still approximately 300 miles of gaps to be paved on the original system before work can be undertaken under the new bond issue.

Missouri comes to the fore with an enviable record in road building during 1925. Approximately 450 miles of paved road were completed. This work was almost entirely concentrated on a few of the state's main traveled roads. Work on state route No. 2, between St. Louis and Kansas City, was pushed but there are still a few unpaved miles which will be completed early in 1926. It has been the policy of this state to undertake the construction of the entire distance on certain roads so that traffic could avoid them during that year and could use the completely improved highway the following year.

Other states that have made exceptional progress are Michigan, Indiana, Ohio, Oklahoma, Wisconsin, New Jersey and Maryland.

The far western states have progressed steadily with an output approximately equaling their accomplishments of previous years. Steadily the roads in the West are being covered with pavement and with gravel so that motor travel anywhere can be undertaken with ease.

The Southeast has taken tremendous steps in highway improvement during the past year. North Carolina has long been known for its progressive policy in highway construction, but in 1925 Alabama, Georgia, South Carolina, Louisiana and Florida joined the ranks of states with an outstanding record of activity in highway improvement.—Highway Engineer and Contractor.

From Pillar to Post

"Your speedometer shows you have gone 25,000 miles. Been taking some long tours?"

"No, the 5,000 is the distance I have covered going back and forth to the office, and the other 20,000 the distance I have covered looking for parking places."
—Cincinnati Enquirer.

Florida's Motor Accident Record

In proportion to the number of automobiles on the highways Florida's motor accident record probably is better than that of any state in the entire South, says the Florida State Chamber of Commerce. One of the press associations is issuing a weekly table showing the number of persons killed and injured in motor accidents in each of the Southern states, and while Florida's total frequently is greater than that of any state in the list it is believed that in proportion to the number of cars on the road its record actually is better.

Florida's law permitting a speed of forty-five miles an hour when traffic conditions will warrant it, has had nothing to do with an increase in motor accidents says the State Chamber. The increase in the number of accidents is due primarily to the enormous increase in traffic, which naturally increases the hazard of accidents. Florida has approximately 300,000 automobiles of its own and this figure has been increased considerably by the thousands of cars from other states now here. With the possible exception of Texas there are more automobiles in Florida at this time, including so-called foreign cars, than in any other Southern state. In other sections of the South highways are inadequate, and this feature, coupled

with cold weather, and bad road conditions due to rain or snow, reduces considerably the volume of traffic. In Florida thousands of cars are on the road day and night and the traffic is from three to five times greater than that of any other Southern state.

The tabulation of motor accidents by the press association includes every casualty in which an automobile figures. Accidents on the streets of cities are tabulated as are railroad crossing accidents. Such accidents rarely are due to high speed but to carelessness in the case of crossings and to carelessness and congestion in the case of city streets.

Science Note

Chemistry Professor: "What can you tell me about nitrates?"

Student: "Well—er—they're a lot cheaper than day rates."—Illinois Wesleyan Argus.

Careless

Sailor: "They've just dropped their anchor."

Mrs. Symp: "Gracious, I was afraid they would! It's been dangling outside for some time."—Sea Bag (U. S. S. Oklahoma).



Project 26—Road 2—Looking Around Curve North of Lake City.

"I AM GOOD ROADS"

From Colorado Highways, November, 1925.

I am good roads.

I return to the public moneys spent for my construction and maintenance a hundred fold.

I add to the safety, comfort and pleasure of the traveling public. My smooth surface makes me a friend to the beasts of burden, lightening their loads.

I reduce the cost of upkeep of horse-drawn vehicles as well as the automobile.

I add miles upon miles of service to automobile tires.

I reduce the cost of lubrication and power, giving more miles per gallon to motor-driven vehicles, paying for my maintenance alone in the saving of fuel.

I annihilate distance, giving more miles per hour of travel.

I take you away from man-made world along highways and byways where one can breathe the fragrance of the meadows.

I take you from the sweltering lowlands to the hills.

I lead you through canons kissed by the sparkling streams of the mountains.

I take you to the crest of the world, opening to your wondering eyes all the most beautiful panoramas of nature.

I make it possible to bring to your homes needed aid in cases of emergency.

I educate old age as well as the youth of the land, making it possible for all to "See America" as I turn page after page of nature pictures painted by the Divine hand, teaching them the beauties of their own country.

I am the arteries of the nation in time of need, making it possible to assemble and assemble quickly, its protective resources.

I am for the whole people. The highways are for the rich and poor alike.

I am of service to the city, the county, the state and the nation.

I give so much and ask for so little. Protect me, I am Good Roads.

Sincerely yours,

J. C. GLASSFORD,
Grand Junction, Colo.

Note—The above was written by Mr. Glassford after he had made a trip on the Western Slope on roads that formerly were impassable to automobile traffic; now you can hit 'em on high, he says.

BUILDING IN FLORIDA

Charles K. Horton, of Houston, Texas, who holds contracts for a large volume of work in Florida, has informed the *Houston Dispatch* he believes there is enough building in sight in Florida to warrant the prediction that work will be proceeding at top speed for at least eight years, says the Florida State Chamber of Commerce. Mr. Horton declared that projects already under way, and for which contracts have been awarded, will require at least four years for completion and that construction contemplated and known to be in prospect, will keep workers busy another four years.

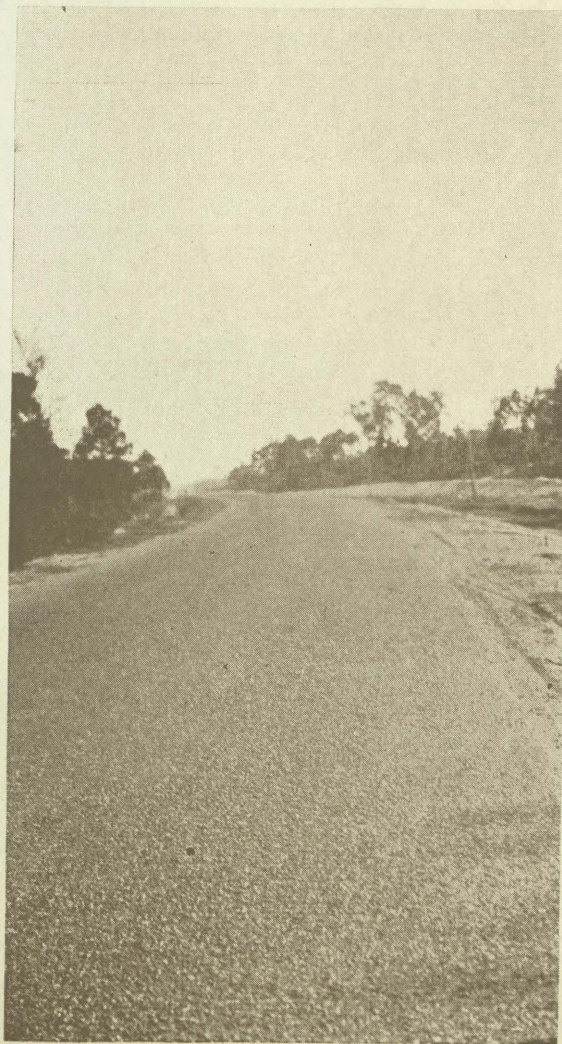
ESTIMATED RESOURCES OF STATE ROAD DEPARTMENT FOR YEAR 1926

Balance on hand January 1, 1926.....	\$ 1,210,152.49
State Road Tax Fund.....	\$ 500,000.00
Gasoline Tax Fund.....	7,000,000.00
Gasoline Inspection Fund.....	200,000.00
Auto License Fund.....	2,500,000.00
Auto Title Registration Fund.....	90,000.00
Federal Aid Fund.....	1,000,000.00
Due from counties for work done.....	1,500,000.00
	12,790,000.00

Total estimated resources for year 1926.....	\$14,000,152.49
10% Reserve for Emergency Work.....	1,400,015.24
Net Estimated Resources Available for Road Construction and Maintenance.....	\$12,600,137.25

Thrift Note

A Scotch professional after five years of retirement has resumed the game. Evidently he found his ball. —James J. Montague in the New York Herald Tribune.



Project 40-A—Road 4—Brevard County.

Florida State Road Department Budget of Maintenance and Construction Work for 1926

PROJECTS UNDER CONSTRUCTION.					PROJECTS NOT UNDER CONSTRUCTION.						
Road No.	Proj. No.	COUNTY	FROM	TO	Length	Road No.	Proj. No.	COUNTY	FROM	TO	Length
1	38-A-B	Escambia	Escambia Bay Bridge		3.49	1	697	Escambia	Perdido River Bridge		500 ft.
1	621	Okaloosa	Milligan—Walton County Line		15.12	1	549	Escambia	Pensacola—Project No. 38		10.50
1	567	Walton	Okaloosa County—Argyle		21.35	1	585	Santa Rosa	Pace—Milton		9.00
1	658-A-B	Holmes	Caryville—Bonifay		8.00	1	534-B	Jackson	Chipola River Bridge		350 ft.
1	631-A-B	Washington	Bonifay—Chipley		8.00	1	557	Gadsden	East Approach Victory Bridge		.67
1	586	Washington	Chipley—Cottondale		7.37	1	536	Gadsden	Quincy—Florence		5.50
1	514	Jackson	Victory Bridge—11 Miles West		11.07	1	673	Gadsden	Florence—Ocklocknee River		8.63
1	634	Jackson	Marianna—East		11.00	1	672-B	Gadsden	Ocklocknee River Bridge		1960 ft.
1	633	Gadsden	Chattahoochee—Sta. 520		9.67	1	612	Leon	Tallahassee—Jefferson Co. Line		17.58
1	639	Gadsden	Station 520—Quincy		9.83	1	598-B	Jefferson	Leon County Line—Monticello		7.80
1	672	Leon	Ocklocknee—Tallahassee		9.90	1	598-A	Jefferson	Monticello—Aucilla River		9.45
1	45	Suwannee	Hillman Bridge		912 ft.	1	6	Madison	Aucilla River—Greenville		5.60
2	19	Hamilton	Genoa—White Springs		8.20	1	571	Madison	Greenville—Madison		14.73
2	26	Columbia	White Springs—Lake City		11.01	1	565	Madison	Madison—Suwannee River		15.64
2	37-B	Alachua	Under Pass		.17	1	529	Suwannee	Suwannee River—Live Oak		12.14
2	37-D	Alachua	Paynes Prairie		2.14	1	533	Suwannee	Live Oak—Columbia Co. Line		13.47
2	553	Marion	Under Pass		.05	1	504	Columbia	Suwannee Co. Line—Lake City		9.15
2	661	Lake	Leesburg—Helena Run		3.52	1	674	Duval	Enterprise—Jacksonville		2.50
2	548-A-B	Hardee	Zolfo—Brownsville		14.17	2	7	Hamilton	Georgia State Line—Jasper		13.00
3	46	Nassau	St. Mary's River—Yulee		11.53	2	31	Hamilton	Jasper—Genoa		11.86
3	421	Nassau	St. Mary's River Bridge		560 ft.	2	F.A.	Lake	Leesburg—Mt. Dora via Tavares		18.00
3	660	Clay	Green Cove Spgs.—Putnam Co. Line		10.52	2	695	Lake	Leesburg—Mt. Dora via Eustis		24.00
3	642	Putnam	Clay County Line—Rice's Creek		10.82	2	687	Lake	Helena Run—Polk County Line		30.00
3	627	Putnam	E. Palatka—Dunn's Creek		6.27	2	573	Orange	Plymouth—Osceola County Line		28.00
3	595	Volusia	DeLeon Springs—DeLand		7.43	2		Polk	Lake County Line—Lakeland		24.00
3	628-B-C-D	Volusia	DeLand—Monroe Bridge		9.92	2		Polk	Osceola Co. Line—Hardee Co. Line		54.00
4	47	St. Johns	Duval County Line—St. Augustine		14.88	2		Hardee	Vaughula—Zolfo		4.00
4	48-A	St. Johns	St. Augustine—Pellicer's Creek		15.66	3		Nassau-Duval	Yulee South—Pavement		2.50
4	49-A	St. Johns	Pellicer's Creek—Bunnell		13.40	3	659	Clay	Duval Co. Line—Green Cove Spgs.		13.27
4	597	Volusia	New Smyrna—Brevard County Line		16.24	3	660	Clay	Doctor's Lake Bridge		1600 ft.
4	40-A	Brevard	Melbourne—Sebastian River		16.17	3	665	Clay	Black Creek Bridge		1400 ft.
4	641-A-B	Palm Beach	Jupiter—West Palm Beach		13.79	3		Volusia	St. Johns River Bridge		
4	656	Palm Beach	Jupiter Bridge		727 ft.	3		Seminole	St. Johns River—Sanford		6.00
4	41	Dade	Broward County Line—Miami		11.76	3	543	Seminole	Sanford—Maitland		14.20
5	617	Alachua	High Springs—Newberry Dist. Line		5.17	3		Orange	Maitland—Orlando		5.50
5	618	Alachua	Newberry Dist. Line—Half Moon		10.89	4	48-B	St. Johns	Bridges		444 ft.
5	682	Citrus	Dunnellon—Holder		6.45	4	49-B	St. Johns	Bridges		226 ft.
5	625	Citrus	Overheads		226 ft.	4		Volusia	Flagler Co. Line—Port Orange		19.00
5	663	Citrus	Floral City—Hernando County Line		8.03	4	668	Brevard	Sharpes—Bonaventure		12.00
5	679	Hernando	Citrus County Line—Brooksville		7.11	4	40-A	Brevard	Turkey Creek Bridge		200 ft.
5	581	Hillsborough	6 Mile Creek—Riverview		11.00	4	691	Indian River	Vero—St. Lucie County Line		4.00
5	593	Manatee	Manatee Bridge		3600 ft.	4	692-693	St. Lucie	Indian Riv. Co. Li.—Martin Co. Li.		25.00
5	613	Sarasota	Manatee County Line—Sarasota		4.62	4	694	Martin	St. Lucie Co. Line—Stuart		3.00
5	614	Sarasota	Sarasota—Venice		17.07	4	640	Martin	Stuart—Jupiter		18.00
5	576	Sarasota	Myakka River—Charlotte Co. Line		5.68	4	683	Palm Beach	V. Palm Beach—Broward Co. Line		29.00
5	564-A	Charlotte	Sarasota Co. Line—Charlotte Har.		10.89	4	653	Broward	Palm Beach Co. Li.—Ft. Lauderdale		13.00
6	657	Jackson	Calhoun Co. Line—Road No. 1		10.00	4	654	Broward	Ft. Lauderdale—Dade Co. Line		13.00
6	666	Jackson	Marianna—Godwin's Gin		6.52	4	619	Alachua	Half Moon—Levy Co. Line		9.28
6	670	Jackson	Godwin's Gin—Alabama State Line		12.30	5	682	Citrus	Overhead Crossing		200 ft.
7	51	Escambia	End of Concrete—Pine Barren		6.30	5		Hillsborough	Tampa—6 Mile Creek		6.00
8	629	Highlands	Lake Annie—East		6.00	5	581	Hillsborough	Alafia River Bridge		300 ft.
8	647	Highlands	Project 629 to Project 630		7.00	5	615	Sarasota	Venice—Myakka River		16.00
8	630	Highlands	Project 647—Kissimmee River		11.00	5	564-C	Charlotte	Punta Gorda—Acline		3.93
8	636	St. Lucie	Project 523—East		12.20	5	564-B	Charlotte	Acline—Lee County Line		10.31
10	637	Leon	Tallahassee—Georgia State Line		18.00	5	589	Lee	Charlotte Co. Line—Ft. Myers		8.27
10	645	Wakulla	Crawfordville—Ocklocknee River		17.00	6	686	Gulf	Government Canal Bridge		150 ft.
10	644	Wakulla	Leon County Line—Crawfordville		12.00	6	605	Polk	Haines City—Frostproof		21.00
10	646	Franklin	Ocklocknee River—Carrabelle		18.00	8	567-C	Highlands	Avon Park—Sebring		7.50
10	651	Gulf	Franklin County Line—Port St. Joe		14.72	8	562-D	Highlands	Sebring—Twp. 35-36		10.00
13	607-B	Clay	Highlands—Maxville		7.68	8	562-A	Highlands	Twp. 35-36—Station 422		5.37
14	50-B	Putnam	Project 50-A—Project 50-C		9.79	8	562	Highlands	Station 422—Lake Annie		8.00
18	655	Highlands	DeSoto County Line—Lake Annie		18.00	10	596	Leon	Tallahassee—Woodville		10.00
27	669-B	Dade	5 Miles East Miami—10 Miles East		10.30	10	685	Franklin	Carrabelle—East Point		16.00
35	623	Madison	Greenville—Taylor County Line		12.13	10	592	Franklin	Apalachicola—Gulf County Line		10.21
Total Roads					608.30 Miles	10	680	Bay	East Bay Bridge		2000 ft.
Total Bridges					10,589 Feet	10	678	Bay	East Bridge—West Bridge		8.00
						10	681	Bay	West Bay Bridge		3400 ft.
						13		Nassau	Yulee—Baldwin		35.00
						13	662-677	Levy-Alachua	Bradford Co. Line—Cedar Key		73.00
						14		Alachua	Gainesville—Putnam Co. Line		18.00
						14	50-C	Putnam	Alachua Co. Line—Project 50-B		8.00
						14	50-A	Putnam	Project 50-B—Palatka		7.00
						14		Putnam	Palatka—St. Johns County		6.00
						14		Putnam Co. Line—Road No. 4		10.00	
						16		St. Johns	Ocala—Road No. 5		23.00
						17		Marion	Haines City—Lakeland		26.00
						17	675	Polk	Lakeland—Hillsborough Co. Line		5.16
						17		Hillsborough	Polk Co. Line—Pinellas Co. Line		38.00
						17		Pinellas	Hillsboro Co. Line—Clearwater		10.00
						18	667	DeSoto	Camp Dorr—Highlands Co. Line		8.00
						9		Leon	Tallahassee—Jefferson Co. Line		14.00
						9		Jefferson	Leon Co. Line—Madison Co. Line		17.00
						9		Madison	Jefferson Co. Line—Taylor Co. Line		6.00
						9		Taylor	Madison Co. Line—Perry		15.00
						9		Taylor	Perry—Salem		18.00
						9		Dixie	Taylor Co. Line—Suwannee River		28.00
						9	676	Levy	Suwannee River—Marion Co. Line		29.00
						9		Marion	Levy County Line—Ocala		25.00
						11		Volusia	Daytona—DeLand		21.00
						14		Osceola	Kissimmee—Brevard County Line		35.00
						27	669	Dade-Collier-Lee	Miami—Ft. Myers		130.00

The Influence of Good Highways for Upbuilding Life

Many years ago, even long before the automobile came into existence, the Manufacturers Record constantly urged the building of good highways as essential to the material, educational and spiritual development of the country districts of the nation.

It was pointed out that the loneliness of farm life, especially to the women and children, was an overpowering burden, even then driving many farmers and many young people away from the country into the congested cities that they might have some of the benefits to be found where a larger population provided increased comforts and conveniences not possessed by the country people. It was said then, and often repeated, that it was incumbent upon the cities of the country to take the lead in working for good highways for reasons of humanity as well as for their own prosperity created by the larger prosperity of the farmers in the surrounding territory.

With the coming of the automobile, these reasons increased a thousand-fold. The blessings which the automobile has brought a thousand times outweigh the evil results from its use in highway robberies, in the escape of criminals and in some other phases of life. Indeed, every great modern improvement, like the

telegraph, the telephone or radio, can be used, and often is used, for disreputable purposes, and probably to an extent exceeding the evil use to which the automobile is sometimes put.

With the invention of the internal-combustion engine a revolution in all business was inaugurated. Today, even in heathen lands, or lands which we have been accustomed to call heathen, the minister of the Gospel largely carries on his work through the use of the automobile despite some of the intolerable road conditions that have to be faced.

The automobile is the greatest factor that ever existed for bringing about improved highways as one of the great advance steps for human betterment. The two together mean better living conditions, the elimination of much of the loneliness of country life of the past, and the possibility of doubling and quadrupling the productive working power of men in the cities and in the country alike.

Wherever good highways are constructed, prosperity and progress follow as surely as day follows night. Wherever intolerably bad roads exist, whether consisting of bottomless mud holes or equally bottomless sand piles, there stagnation takes place, along



Photograph of Chairman, Assistant State Highway Engineer, Division Engineers and Traffic Manager, taken on the occasion of the conference held in Jacksonville in February.



Project 597—Road 4—Dixie Highway South of New Smyrna.

with gradual deterioration of the moral and educational condition of the people, and there poverty exists in direct contrast with the prosperity to be found where modern highways are built.

We are giving in a special section in this issue many facts and figures in regard to what is being done in the building of highways, counting these as one of the most potent influences that the mind of man can bring forth for the betterment of life, the increase of man's working capacity, the advance of education, the increase of material prosperity and the betterment of the things which make for greater comforts and conveniences throughout the country.

We repeat what we have so often said before: The improved highway is the road that leads upward to larger and better life, to the sunlit hills of human progress, while the bad road, wherever it exists, leads downward to poverty of mind and body and in material affairs.

He who does the most for the building of improved highways with a vision of what they mean will do the most for the advancement of the comforts, the advantages, the progress—material, educational and spir-

itual—of the country through which they are built.

Then on with highway work as of individual, state and national importance!—Editorial in Manufacturers' Record.

Fickle

When Herbert Spencer was in this country, a great dinner was given him in New York, at which many significant speeches were made, and the most significant and eloquent of all was by Henry Ward Beecher. Afterwards a pompous and enormously conceited physician ran up to Beecher with this exclamation: "Beecher, you are the greatest man in the world," to which Beecher replied, with biting sarcasm:

"My dear Doctor, you have, for the moment, forgotten yourself."—Christian Register.

Not in Dayton, Either

The teacher was giving a lesson on the Creation. John interrupted with the remark: "My father says we are descended from apes."

Teacher: "Your private family matters have no interest for the class."—Tit-Bits, as credited by the Christian Register.



Project 534—Road 24—Brevard County.

How Do We Do It?

Two and a half billion dollars, according to semi-official estimates, will be spent this year by motor campers and automobile tourists. Not millions, but billions. These figures, stupendous as they are, do not include the cost of the cars that will be used. They represent the estimated outlay for gas, oil, repairs, replacements, food, hotel bills, souvenirs, and other expenses incident to motor travel. According to a report submitted to the gathering of the International Chamber of Commerce at Brussels, we have seventeen and a half million cars in use.

The staggering sums that Americans are spending for outdoor enjoyment of one sort and another run well into ten figures. The items which make up this total seem less like statistics than like the ravings of a mad statistician whose mind has been unhinged by too much figuring. Let us inspect these processions of numerals to see if some unauthorized noughts have not elbowed their way in by mistake.

In 1924, according to the best estimates, no fewer than twelve million persons went in for real motor camping and slept in their own tents or cars at night. The total for 1925 will be even greater. The campers of last year used camp equipment which cost them four hundred and fifty million dollars. The oldtimers got out their 1923 gear and replaced lost and outworn articles at an average cost of fifty-eight dollars for each outfit. One-third of the 1924 motor campers were first-timers, debutants of the open road. Their camp gear was new and cost one hundred and ninety-eight dollars for each party. No less is being spent this year.

Nearly half the motor campers of the present season are members of short-trip parties, which go away for a few days only and whose travel does not exceed a thousand miles. More than six millions are long-trailers, who will do more than a thousand miles and will spend an average of not less than thirty-three days under canvas. The daily expenses of both classes will run very close to \$2.05, or \$7.17 for the party of average size.

These twelve million wanderers include a surprisingly large proportion of solid and representative citizens. Mr. Frank E. Brimmer, to whose studies we are indebted for these figures, recently read about eight thousand letters from motor campers. He was impressed by the fact that 70 per cent of them were typewritten. Of the thousand he has talked with, some 35 per cent were professional men, executives or owners of their own business. A large proportion of them drive cars that cost more than a thousand dollars.

Incredible as it may seem, if our motorists had increased their expeditions by less than 50 per cent their outlay would have equalled the entire amount it cost to run the United States government and all its various activities during the fiscal year just closed.

The slogan of other years, See America First, has lost its point, for today more of our people are getting close-ups of large territorial areas than the boldest prophet would have cared to predict a few years ago. For the first time in our annals we are getting together and getting acquainted on an epic scale. These voluntary pleasure wanderings have attained proportions which make the great forced migrations of history seem trifling and insignificant. The Union is thoroughly shuffled when California easts the fried clams of Massachusetts and New Hampshire looks out on the Pacific.

No comparable outlay for health and recreation has ever before been made. The fact that six million of us can get away from home and work, under our own power, and spend a month or more enjoying ourselves in the open, laying up fresh reserves of health and strength against another winter's toil, has more economic significance than all the statistics of savings accounts, bank clearings, car loadings and foreign trade put together. It is an amazing index of the world, prosperity and vigor of the nation.

The movement is so new that its extent is not universally known, and it is so vast that even when known it is impossible to grasp and visualize it.—Saturday Evening Post.

Beautifying Florida's Highways

Interest in State beautification is growing in all sections of Florida as a result of the work of women's clubs and individuals and the efforts of its State Beautification Committee under the leadership of Karl Lehmann, of Orlando, says the Florida State Chamber of Commerce. Women's clubs throughout the State observed January as "plant a tree" month and devoted their energies toward the setting out of at least 20,000 oaks, laurels, oleanders and other trees.

A. Phil Maurer, of Orlando, has presented more than 1,000 canna bulbs to the Orange County Beautification Commission which is putting them out along the highways in that county. The Orange County Commission recently completed one of the finest plantings yet made in Florida when it placed scores of bougainvillea and alamanda plants about the small

lake at Maitland, on State Road No. 3, near the Orange-Seminole county line.

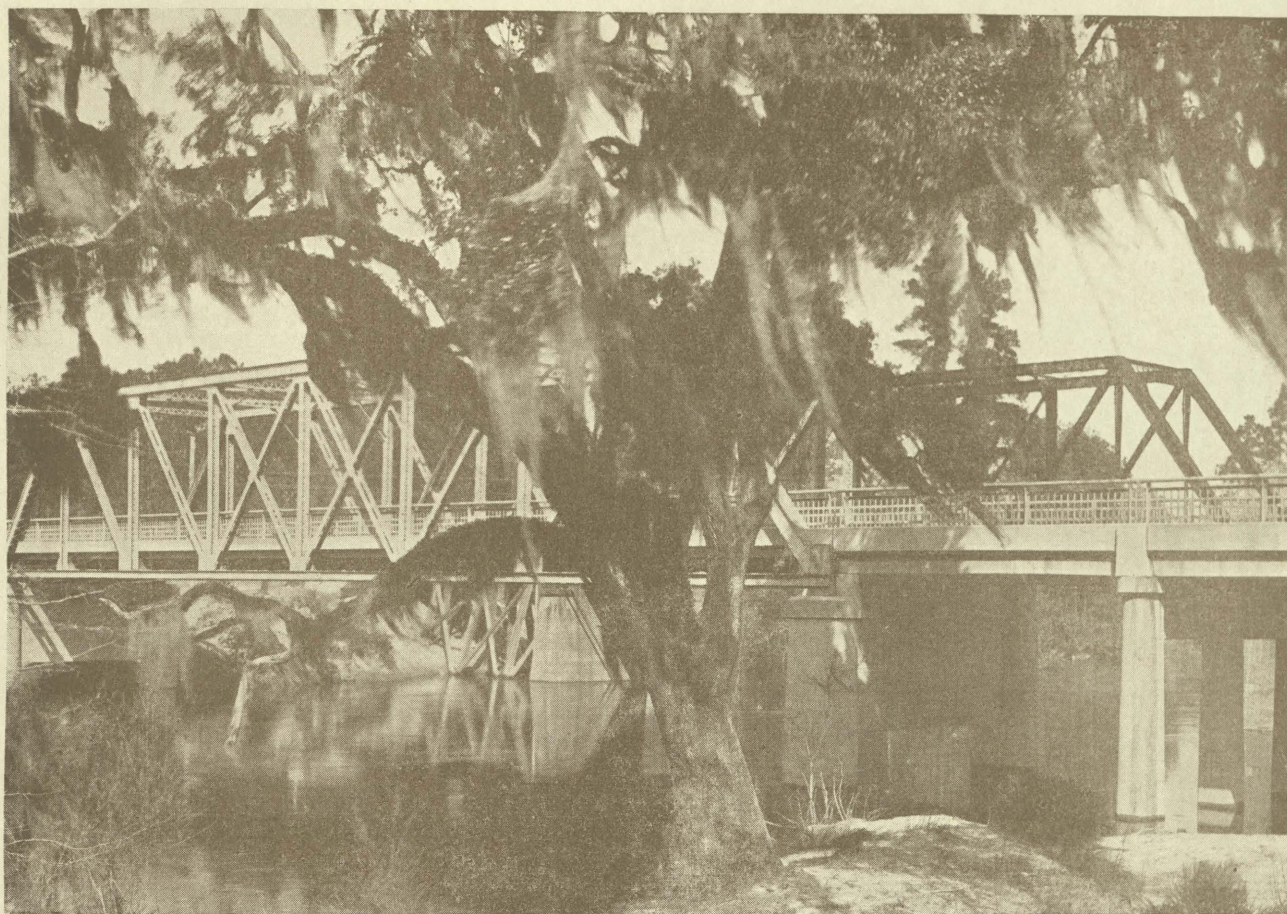
In West Florida an ambitious planting program is being carried out in the vicinity of Marianna and Cottondale. Hundreds of liveoaks have been set out along both sides of State Road No. 1 between the two points while hundreds are being placed along State Road No. 20 between Cottondale and Panama City.

His Face Would Hang Him

Judge (to prospective jurymen): "So you've formed an opinion of the case?"

P. J.: "Yes, your honor, one look at that man convinced me he was guilty."

Judge: "Heavens! Man, that's the prosecuting attorney!"—Wabash Caveman.



Bridge Over Suwannee River Between Hamilton and Columbia Counties at White Springs.

To a Jaywalker

Motor News

Jaywalker, jaywalker, beware of the day,
When you jaywalk a street in your jaywalking way!
Lest an auto should get you and you will be lamed,
For which your jaywalking can justly be blamed.
Or, you may be crushed from your feet to your head.
Or, what often happens, struck suddenly dead.

E'en some careful walker—no kin to you, Jay—
Is hit someplace somewhere on each busy day.
This fact should impress you as you rush along,
It's no age to jaywalk deliberately wrong.
The cops and the signals where streets intersect
Will tell you to go—and to stop, recollect.

Should you live through your walks you'll wear a
scared look,
Condemned you must be for the rules you ignore,
And for adding yourself to casualty's score.
You blot the good name which pedestrians crave
By jaywalking yourself to a jaywalker's grave.
—Exchange, in All Florida Motorist.

MOTORISTS SHOULD TAKE CARE OF THEIR AUTOMOBILE TITLE CERTIFICATES

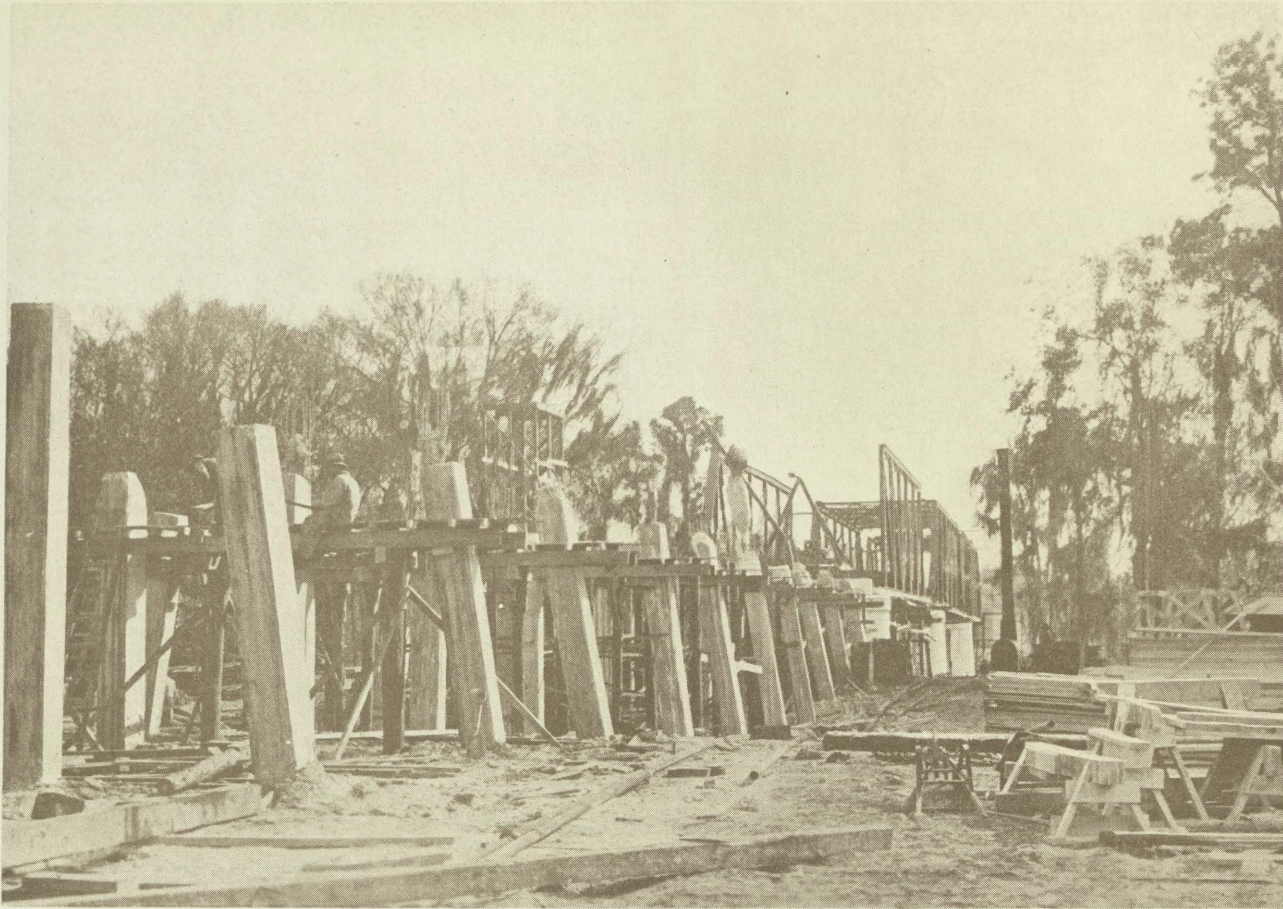
Floridians are urged by the Florida State Chamber of Commerce to put their automobile title certificates in a safe place. Under the State law a license plate will not be issued to a motorist unless he exhibits his certificate of title and if the certificate has been lost a duplicate costs fifty cents. The fee is inconsequential but a quantity of red tape must be unwound.

Duplicates can be obtained only from the State Comptroller in Tallahassee and because of the large number of persons who annually apply for them there is delay in issuance, with the possibility that a late applicant might not be able to obtain it before the days of grace allowed for obtaining a new license plate have expired. The Comptroller's office received thousands of applications for duplicate certificates in January from persons who had either misplaced or lost them.

The certificate of title is equivalent to a deed and was adopted by the State as a means toward curbing the activities of automobile thieves, for under the law the certificate of title must be endorsed and transferred with a car when it changes ownership.

Not So Healthy Now

—He was never ill enough to take his bed until after his death.—From an "obit" in a Texas paper.



Suwannee River Bridge in the Making. Project 45, Road 1. Photograph Taken February 8th, 1926.

AUTO AILMENTS ARE DIAGNOSED

One of the most interesting studies made by the American Automobile Association is a diagnosis of auto ailments. It was made in response to thousands of emergency queries, "What is wrong with my car?"

The A. A. A. diagnosis is based on the records of hundreds of its clubs which maintain emergency, free mechanical road service.

The analysis of the calls for emergency road service discloses that more than one-half of the operating ills of your car are due to tire trouble and to failure of the battery and ignition system. That this diagnosis holds universally true is indicated by the fact that all the records of the A. A. A. clubs agreed on the point.

Out of 3,215 calls for emergency service made on the District of Columbia Division of the American Automobile Association during the past four months, 922 were due to tire trouble, while 912 were due to battery and starter trouble.

Perhaps the most surprising thing developed by the diagnosis is the large amount of trouble due to failure on the part of motorists to keep gasoline in their cars. Out of the 3,215 calls, 469 were labeled "out of gas." In fact, about 10 per cent of the motorists calling for the auto doctor did so because they forgot that an automobile cannot run without fuel.

Trouble with the gas line occasioned 177 calls for help. While the carbureter is regarded as the most delicate part of a car's mechanism, the amount of

trouble it gives is comparatively small, it having accounted for only 81 out of more than 3,000 emergency calls.

You'd Hardly Believe It HOLY-MOSES

Monona, Ia., Nov. 19.—St. Patrick's church was the scene of a pretty ceremony, when Miss Irene Moses and Elmer Holy were united in marriage by the Rev. Father Donlon. They were attended by Miss M. Moses and J. Holy, sister and brother of the bride and groom. The wedding music was furnished by a quartet from St. Patrick's choir with organ accompaniment.

After a short wedding trip, Mr. and Mrs. Holy will be at home on the groom's farm near Monona.—Dubuque Times-Journal.

Little Willie: "I don't want to go to that damn school any more!"

Father (a bricklayer): "Why, Willie, where did you ever learn such a word as that?"

"Why, William Shakespeare uses words like that."

"Well, then, quit runnin' around with him."—Los Angeles Two Bells.

Retrospective Thrift

Wife (as hubby comes in): "What in the world is Mr. Nexdore doing crawling all over his lawn?"

Hub: "He says he's looking for a lump of coal he threw at the cat last summer."—Boston Transcript.

THE BUDGET MEETING

(Continued from Page 4)

Wednesday, March tenth, has been chosen as the time and Tampa as the place where the hearing will be held. While, in view of the intense public interest in the construction of roads in Florida, it is probable that there will be a large attendance at this meeting, it is not anticipated that any material changes will be urged, because of the broad and comprehensive scope of the budget as prepared by the members of the Department.

We are presenting this budget on another page of the present issue and a careful study of its proposals is invited. Following the meeting at Tampa, and after due and careful consideration of such matters as may be presented there, the Department will adopt its final budget which will control its operations for the year.

THE RIGHT-OF-WAY SITUATION

The Editor, whose main connection with the State Road Department is that of attorney, magazine "building" being a side issue, is necessarily in close touch with the situation which confronts the Department with reference to securing rights of way for State Roads.

At the present time no single factor, not even freight congestion and embargo, is proving so serious a handicap to the State Road Department in its endeavors to build Florida's road system speedily. All over Florida there are projects which the Department desires most earnestly to commence and carry to conclusion and which they cannot undertake because the necessary rights of way are not forthcoming. These roads have been located, the Department has the money to construct them and is still, in many instances, unable to begin immediate work.

The writer had the pleasure during February of making a visit through Levy, Orange, Lake and Seminole Counties for the purpose of facilitating the securing of rights of way for State Roads. It was his pleasure to find in every instance that the county commissioners are making a sincere effort to co-operate with the Department in this matter, but that they are often hampered and delayed by property owners who are reluctant to grant a right of way because of some damage which they fancy they can see to their property. It does happen, of course, as in the case of a very small parcel of land through which a road is projected that some damage may result, but the writer out of an experience which now covers nearly three years cannot recall a single one in which the benefits which will inevitably accrue from the construction of a high-type road will not far outweigh any inconvenience which may be experienced. It is true that when such cases are presented in a court of competent jurisdiction in a condemnation proceeding, prospective benefit from the proposed improvement cannot be shown to offset the value of the land taken, but it is simply a matter of common sense to face the fact that this benefit does inevitably accrue. The counties in which land values have reached the highest peak are those in which we find the largest mileage of high-type roads, and the

value of the land increases in direct proportion to its proximity to a good road.

This conclusion is not susceptible of successful contradiction. It is realized even by those who make the largest demands for the lands taken; in fact, it is unfortunate but true that instances are not lacking where property owners have simply endeavored to take advantage of the necessity for securing a right of way through their lands to make unreasonable demands. It is not, has never been, and will not be the disposition of the State Road Department to work a hardship on any man, but it must of necessity have a right of way upon which to build its roads, and it earnestly urges the property owners of Florida to co-operate—to accept what may appear to be a present inconvenience for the sake of the larger good of developing every section of our great commonwealth.

No factor has been more potent in the development of our Florida than its road construction—a continuation of that construction will open a greater empire. To this programme the State Road Department is pledged and toward its accomplishment all its resources will continue to be used.

AWARD OF PRIZE

Florida Highways takes pleasure in announcing that the prize of ten dollars, offered to the reader who first submitted a correct list of the views presented in its January issue, has been awarded to Mrs. Bunyan Stephens, of Tallahassee, and a check for that amount has been mailed to her.

In making this award, the Editor took into consideration the time which would elapse before the magazine would reach the hands of its farther readers, and the announcement was deferred in order to give all readers an equal opportunity. It is gratifying to be able to announce that a number of absolutely correct answers were received, and Florida Highways desires to express its thanks to those who sent in their lists. It is a source of satisfaction to us to have this substantial evidence that so many of our readers are keeping a complete file of the magazine.

Filial Loyalty

Father: "So the teacher caught you using a bad word and punished you."

Jimmy: "Yes, and she asked me where I learned it."

Father: "What did you tell her?"

Jimmy: "I didn't want to give you away, pa, so I blamed it on the parrot."—Boston Transcript.

Banishing Canada

Two-door five-passenger sedan; model 263; \$300 cash, balance monthly; many other bargains in new and used automobiles; cheaper than anywhere in the world or Canada.—From an ad in the Pittsburgh Chronicle Telegraph.

Garb in Arizona

OVERCOATS, suits, shoes, shirts, gloves, suitcases, trunks, firearms, practically everything men wear. B. B. 2nd Hand Store, 419 E. Wash.—Ad in the Phoenix Republican.

THE DEPARTMENT'S ACCOMPLISHMENTS FOR THE PAST SIX MONTHS

(Continued from Page 5)

miles sheet asphalt, 38.29 miles surface treated rock base, 46.51 miles sand clay and 41.89 miles grading. The figures here given are for roads actually completed, and have no reference to those under construction.

During this six months' period the Department has undertaken the construction of 73.15 miles of hard-surfaced highways and 171.56 miles of clearing, grubbing, grading and incidental drainage structures, involving expenditures, respectively, of approximately \$2,081,431.41 and \$1,465,517.77. In addition, it has set under way the construction of 6,148 feet of bridges at a cost of \$887,361.48, making a grand total of work undertaken during the past six months of \$4,434,292.96. It has recently been pointed out that there is under construction at the present time a road programme involving the expenditure of more than seven million dollars.

Highlights in the accomplishments of the past six months include the completion of a good, sand clay surface road between Tallahassee and Lake City, which, connecting there with the paved road, makes a fine travelable highway from the State Capital to Jacksonville. The gap in the pavement on Road No.

13, between Maxville and Highland, has been completed, which gives a new and shorter route between Jacksonville and Tampa. It is now possible to travel over this road and its connections on a hardsurfaced road from Jacksonville to Tampa, with the exception of that stretch across Paine's Prairie, which will doubtless be completed within the course of the next thirty days. The gap in Road 4 south of New Smyrna has also been completed, which gives a continuous high type road from Port Orange to Melbourne. The remaining link in State Road No. 3 between Sanford and DeLand has also been paved, and thereby one of the sore spots in that section has been removed.

Another important step is the completion of the gap between Lake Annie and Okeechobee, pavement of which has just been finished.

Altogether the results of the past six months are most satisfactory. But the Department has only made a start. This is perfectly clear when it is pointed out that of the primary system only 29% has yet been paved. There is a great work ahead for the Department, a programme which it undertakes with confidence and eagerness.

The Height of Frankness

WANTED—Position as housebreaker in widower's home. 249 Belle Vista Ave., R. No. 8. 1-6-3.—Ad in the Newark (O.) American Tribune.



Federal Aid Project 40-D—Brevard County—Road 4.

ECONOMIES RESULTING FROM HIGHWAY IMPROVEMENTS

(Continued From Page 7)

The consolidated rural school is the result of highway improvement. The economy and efficiency thus promoted are marked features. Good roads have enabled the children by easy means to attend the consolidated school where better advantages can be offered. Environment affording varied opportunity is a strong factor in human development.

Improved highways have meant the facilitation of social intercourse. In rural districts the people are scattered and social activities are hampered. The weather and the condition of the highways determine the ease and comfort with which social gatherings may be attended. A certain amount of social contact is necessary to all men. Reasonable opportunities should be presented for social meetings.

More important than all, however, is the strictly economical aspect of highways. Schools and social intercourse make for the happiness of the individual, but there can be no happiness without a certain material foundation. Improved highways make possible the marketing of produce at the most favorable time. With perishable produce, this means the right season as well as the right price. Good roads decrease the cost of transportation and bring the farmer nearer to his market. Economy of time and economy of overhead expense both contribute to increase the farmer's hard-won earnings. He becomes a happier, more useful member of society. This fits in with our President's idea "to save people."

The farmer is the basic member of society. He feeds the world. Upon his prosperity depends the prosperity of the country. The bakery makes the bread, but the farmer furnishes the wheat; the cereal manufacturers turn out many kinds of breakfast foods, but the grain comes from the soil; your factories manufacture tin cans, but it requires the farmers to fill them.

Hence the good roads from the farm to the railway station, from station to factory, and from the factory back to the station and to the homes everywhere. Highways make possible the interchange of products. They are the links in the great commercial chain. Without them we are isolated communities; with them, we form a nation.

Improved roads have made possible the rural mail delivery which helps to keep the farmer abreast of the times. He can have his daily paper and keep in touch with the markets and with the weather reports.

Good roads have resulted in the educational, social, and financial well-being of our country. They have enabled each "rood of ground" "to maintain its men." And the glory as well as the strength of a country lies in a contented and a happy husbandry.

Or Dome Raising?

A man has written a book on Bean Culture. That's vulgar. Why couldn't he just as well have called it Mental Development?—San Francisco Examiner.

Why is it a woman, who constantly complains that she has nothing to wear, has to have six closets to keep it in?—Detroit News.

Reinforcing Bars for Concrete

Made in the United States
from new billet steel.
Intelligent, dependable service
by expert bridgemen.

Dudley Bar Company

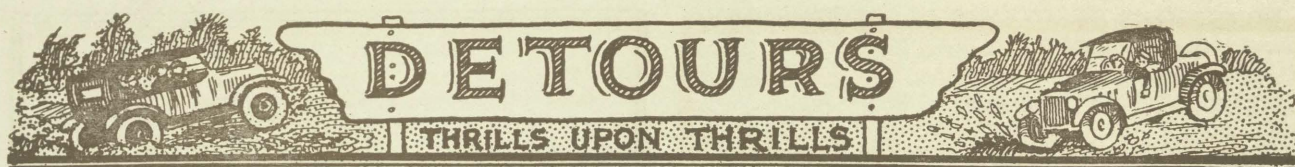
BIRMINGHAM, ALA.

AIN'T IT FINE TODAY?

Sure this world is full of trouble—
I ain't said it ain't.
Lord! I've had enough and double,
Reason for complaint,
Rain an' storm have come to fret me,
Skies were often gray;
Thorns an' brambles have beset me
On the road—but, say
Ain't it fine today!

What's the use of always weepin',
Makin' trouble last?
What's the use of always keepin'
Thinkin' of the past?
Each must have his tribulation,
Water with his wine,
Life it ain't no celebration,
Trouble? I've had mine—
But today is fine.

It's today that I am livin',
Not a month ago,
Havin', losin', takin', givin',
As time wills it so,
Yesterday a cloud of sorrow
Fell across the way;
It may rain again tomorrow,
It may rain—but, say,
Ain't it fine today?
—Douglas Malloch in *Arkansas Highways*.



Doesn't Need Glasses

The carelessness of a printer in making galley-proof corrections led to this amusing appearance of an ad in *The Camera* Monday night, and the following letter from a subscriber:

"Found—Pair of tortoise-shell glasses on University campus Sunday. Owner may have same by describing Mrs. Lucile Neuswanger of Pueblo."

The letter:

"Daily Camera—My guess is that Mrs. Lucile Neuswanger is a tall lady with bobbed hair, wears glasses, and fur-trimmed clothes, also silk stockings. If this description fits please send me the glasses.—A Subscriber."—Boulder (Col.) Daily Camera.

An Alarming Example

Sunday evening his sermon theme will be "Deadly Perils of Marriage." A Spanish family of twelve will be on the platform to sing a number of songs.—From a church item in the *Hollywood Daily Citizen*.

In the Show Business

French tutor's ad in English paper: "A young Paris man desires to show his tongue to classes of English gentlemen."—*Boston Transcript*.

Going the Pace

First Aimless Shopper (to second ditto): "Well, dear, if you're not going to buy anything, we might just as well look at something more expensive."—*The Humorist* (London).

Sh-h! Keep It Dark!

Lady: "Are your eggs fresh?"

Clerk: "Mam, the hen doesn't realize I've got them yet."—*Allston Recorder*.

Pistols and Coffee

Miss Prudence Corley, 4331 Avondale, will entertain on Christmas Eve with a bullet dinner at the Dallas Country Club.—Society item in a Dallas (Texas) paper.

A Single-Handed Choir

Mr. Peavey not only played the piano accompaniments but sang bass, contralto and tenor solos when necessary. The audience listened in rapt attention.—*Musical America* (New York).

Ambitious

Grocer (to boy): "Hm! So you want a job, eh? Do you ever tell lies?"

Boy: "No, but I'd be willing to learn."—*The Progressive Grocer*.

One Thing Needful

Loquacious Barber (after a good half-an-hour of it)—"And what would you like on your hair, sir?"

Weary Customer: "My hat—just as soon as you can manage it!"—*London Opinion*.

No Hurry

Negro Caller at Hospital: "I came to see how mah fren' Joe Brown was gettin' along."

Nurse: "Why, he's getting along fine; he's convalescing now."

Negro: "Well, I'll just sit down and wait till he's through."—*Brockton Call*.

A Bustling Burg

Visitor: "I should think, by the look of things, that nothing ever happens here."

Native: "Oh! It be a pretty lively place for its size—why, it's not two weeks since we had an eclipse of the moon!"—*The Passing Show* (London).

Specialists

"Does your man work, Mrs. Waggs?"

"Oh, yes; he peddles balloons whenever there's a parade in town. What does your husband do?"

"He sells smoked glasses during eclipses of the sun."—*Life*.

No Junk Wanted

Agent: "By the way, there are some old Roman remains at the south end of the estate."

New Owner: "Are there—well you 'ave 'em cleared away before I take possession."—*The Passing Show* (London).

The Motor Age

Young Mother (proudly): "See! Baby is learning to walk!"

Friend: "Oh, do you think it really worth while to teach him? Practically nobody walks nowadays."—*Life*.

A Representative desires to have the Congress solve the servant problem. He pays the sagacity of that body a high compliment.—*South Bend Tribune*.

Truth crushed to earth will rise again, of course, because it will not lie.—*Florence* (Ala.) *Herald*.

The way they get in and out of Cabinets, you'd think the French politicians learned their statesmanship from Houdini.—*New York American*.

Florida is establishing a bird sanctuary. The general impression has been that what is needed is a refuge of out-of-town fish.—*Detroit News*.

Tit for Tat

Lecturer: "Now for a few minutes, ladies and gentlemen, we shall consider the fundamental principle of architecture. The Truscans—"

Voice from the rear: "How d'y'e build a dog-house?"

Lecturer (promptly): "Do you contemplate moving, sir?"—*Boston Transcript*.

Elastite Expansion Joint
is as easily handled as a
board. It can readily
be cut to the crown of
any road or in special
shapes to suit unusual
conditions of installa-
tion.

The Philip Carey
Company
Lockland, Cincinnati,
Ohio



Jack Camp,
President.

E. F. Fitch,
Vice-President.

Clarence Camp,
Sec. and Treas.

CAMP CONCRETE ROCK COMPANY

Jacksonville

Ocala

Tampa

Producers of High Grade Washed, Crushed
and Sized

CONCRETE ROCK

"Camp Quality"

Capacity 1,500 to 2,000 tons daily. Quarry
four miles east of Brooksville on Atlantic
Coast Line Railroad. Our product has been
approved for all structural concrete and
bituminous macadam.

C. W. STONE, Sales Manager

Sales Offices: 1011 Bisbee Bldg., Jacksonville, Fla.
312 Citizens Bank Bldg., Tampa, Fla.

Contracts Awarded by State Road Department January 1, 1926 — March 1, 1926

Contractors	Project	County	Roads Length Miles	Bridges Length Feet	Contract Plus 10%	Type
Noonan-Lawrence	51	Escambia	6.28	....	206,575.89	Concrete
J. S. Walton & Co.	648-B	Hardee .....	....	615	83,228.09	Bridges
Chas. F. Wilmore.....	641-A	Palm Beach.....	11.36	....	86,081.38	Grade
Total.....			17.64	615	\$375,885.36	

His Opportunity

The scene was a hospital in Scotland.
"Who are they operating on now?" inquired a
nurse of an orderly.

"A poor fellow who had a golf ball knocked down
his throat," was the reply.

"Oh," said the nurse. "And who's the man wait-
ing so nervously in the hall, a relative?"

"No," said the orderly, "that's the golfer; he's
waiting for his ball."—Boston Transcript.

The story comes from California that a man out
there was cured of paralysis by being struck by light-
ning. Now let Florida tell one.—Columbus Dispatch.

Bridge Runs Wild

JAMES BUSHEE AND WIFE

HAVE NARROW ESCAPE

—RUN INTO BY STATE ROAD BRIDGE

—Headlines in a Pennsylvania paper.

A Whale of a Goat

Deland—During the year ending January 5,
Sheriff Stone, of Volusia county, had seized 9,170
quarts of liquor of the red variety, 1,382 of "shine,"
38 stills, 12,000 gallons of buck, five automobiles and
a 60-horse-power motor goat.—Prohibition Enforce-
ment item in a Florida paper.

Status of Road Construction

THROUGH DECEMBER 31, 1925

Project No.	Contractor.	Road No.	County	Total Length Miles	Clearing Miles	Grading Miles	Base Miles	Surface Miles	Per Cent Type Complete
19	Duval Engr. & Contr. Co.	2	Hamilton	8.20			0.00	0.00	S.T. 0.00
37-D	Fla. Drainage & Const. Co.	2	Alachua	2.14	2.14	2.09			G. 98.00
40-A	C. F. Lytle	4	Brevard	16.17	16.17	15.04	13.84	0.00	S.T. 88.00
43	Wm. P. McDonald Const. Co.	2	Marion	10.44	10.44	10.44	10.44	10.44	S.A. 100.00
46	B. Booth & Co.	3	Nassau	11.52	10.95	10.02			G. 95.80
47	Boone & Wester	4	St. Johns	14.96	11.98	4.49			G. 47.00
50-B	B. Booth & Co.	14	Putnam	9.77	0.00	0.00			G. 0.00
514	State Forces	1	Jackson	11.04	0.00	0.00		0.00	S.C. 10.50
567	State Forces	1	Walton	21.35	20.93	17.08		16.23	S.C. 80.70
581	Barnes & Smith	5	Hillsborough	12.10	10.50	9.25	4.50	0.00	S.T. 64.00
586	Gillis Const. Co. & S. F.	1	Jackson-Washington	17.37	13.00	11.50		11.00	S.C. 77.00
595	Strickland & Travis	3	Volusia	7.43	5.20	1.48			G. 31.30
597	J. Y. Wilson	4	Volusia	16.29	16.29	13.85	14.33	0.00	S.T. 89.00
607-B	Whitney Const. Co.	13	Clay	6.76	6.76	6.76	4.26	0.00	S.T. 75.00
613	Broadbent Const. Co.	5	Sarasota	4.62	4.62	4.39	0.00	0.00	S.A. 16.00
614	State Forces	5	Sarasota	17.07	2.50	1.30			G. 8.00
617	Taylor & Cox	5	Alachua	5.17	4.91	4.80			G. 95.20
618	J. R. & J. B. Miller	5	Alachua	10.89	9.25	5.66			G. 54.00
621	Penton-Mathis Const. Co.	1	Okaloosa	17.35	2.08	1.04			G. 4.75
623	State Forces	35	Madison	12.91	8.99	8.99			S.C. 55.10
627	State Forces	2	Putnam	6.27	5.96	5.64	0.00	0.00	S.T. 34.00
628	L. M. Gray	3	Volusia	9.92	9.92	9.92	7.44	0.00	S.T. 84.00
630	Meyer Const. Co.	8	Highlands	11.00			10.72	6.05	S.T. 96.00
631	E. P. Toulmin	1	Washington-Holmes	8.53	.25	.17			G. .28
633	Taylor Contracting Co.	1	Gadsden	9.67	9.13	7.69		0.00	S.C. 67.00
634	State Forces	1	Jackson	11.07	9.41	7.98		5.00	S.C. 64.25
636	C. F. Lytle	8	St. Lucie	12.20			11.78	8.07	S.T. 90.26
637	State Forces	10	Leon	18.08	18.08	15.50		14.46	S.C. 82.00
639	Taylor Contracting Co.	1	Gadsden	9.83	9.14	9.14		0.00	S.C. 73.00
642	B. Booth & Co.	3	Putnam	10.82	10.28	9.20			G. 78.60
647	H. E. Wolf	8	Highlands	7.00		7.00	.74	0.00	S.T. 35.00
648	Federal Contr. Co.	2	Hardee	14.17	3.20	1.30			G. 10.00
651	State Forces	10	Gulf	14.72	8.24	5.15		0.00	S.C. 15.80
655	State Forces	18	Highlands	13.26	11.93	10.21			G. 79.00
657	State Forces	6	Jackson	10.00	2.40	2.30		.70	S.C. 16.20
658	Myers Const. Co.	1	Holmes	8.21	.57	.41			G. 4.34
660	B. Booth & Co.	3	Clay	10.52	0.00	0.00			G. 0.00
661	Sou. Paving & Const. Co.	2	Lake	3.52	3.10	2.85	0.00	0.00	S.A. 23.64
663	Taylor Contr. Co.	5	Citrus	8.03	0.00	0.00			G. 0.00
666	State Forces	6	Jackson	6.52	4.63	3.32		.52	S.C. 51.05
669-B	M. C. Winterburn, Inc.	27	Dade	10.32		4.74	0.00	0.00	S.T. 19.00
670	State Forces	6	Jackson	12.30	1.84	4.79		2.83	S.C. 29.25
672	State Forces	1	Leon	9.92	3.50	3.50		0.00	S.C. 25.00
673	State Forces	1	Gadsden	9.90	1.50	1.00		0.00	S.C. 5.00
679	Taylor Contr. Co.	5	Hernando	7.11	0.00	0.00			G. 0.00
682	Caye-Andrews Co. Inc.	5	Citrus	6.45	.80	.60			G. 8.00

TOTAL MILES COMPLETE

	Concrete	Brick	B.C.	S.A.	B.M.	Asp.	Blk	S.T.	S.C.	Marl	Grad.	Total
Complete November 30, 1925	126.51	12.44	10.74	55.58	71.50	23.20	353.40	374.44	37.08	83.87	1,148.77	
December, 1925				.29			3.55	14.27		9.71	27.82	
Total to date	126.51	12.44	10.74	55.87	71.50	23.20	356.95	388.71	37.08	93.58	1,176.59	

	Clearing Miles.	Graded Miles.	Base Miles	Surface Miles.
Complete November 30, 1925	1,193.20	1,147.93	461.80	1,085.85
December, 1925	23.65	32.13	2.09	7.96
Total to date	1,216.85	1,180.06	463.89	1,093.81

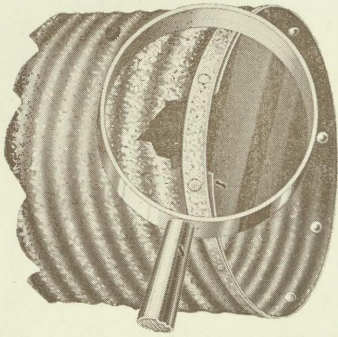
Note—The above tabulation shows only those projects that are actually under construction at the present time and does not show projects that have been previously completed. However, the table, "Total miles completed," at the foot includes all projects that have been completed prior to December 31, 1925, and the amounts completed in December also. The abbreviations used are as follows.

C.—Concrete. S.A.—Sheet asphalt. B.M.—Bituminous macadam. R.—Rock base. S.C.—Sand clay. G. & D.—Graded and drained. S.T.—Surface treated. B. C.—Bituminous concrete.

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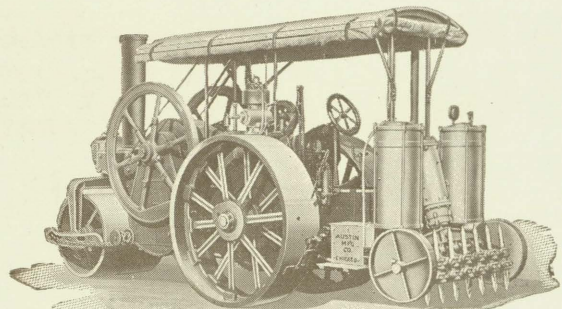
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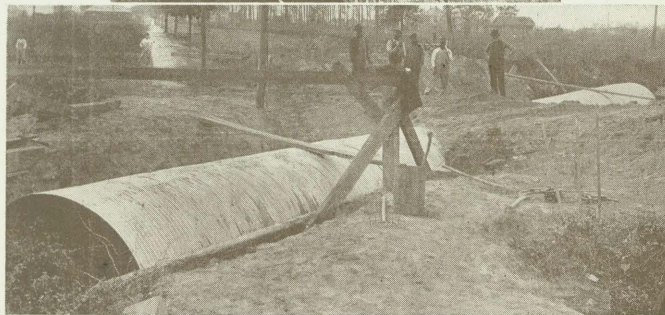
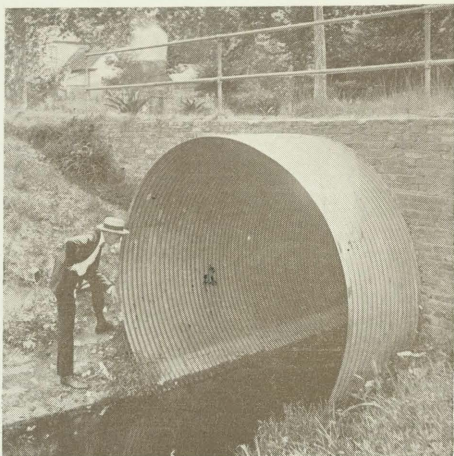
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Above: Culvert at Waycross, installed 1910.
Below: Culvert recently installed under new road at Waycross farther up on same creek.



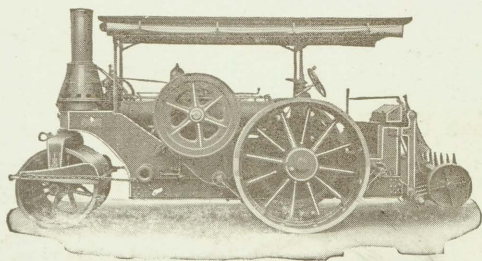
At Waycross, Georgia, just across the line from Florida, the old Armeo Culvert, 9 feet in diameter, shown above at the left, was installed in 1910. Today it is still in perfect condition. In fact, it has lasted so well that when just recently a new road was built farther up on the same creek, an Armeo Culvert was used there also. Armeo installations are permanent!

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